UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,032	03/31/2004	Yasunori Otsuka	FUJI 16.575A (100794-0059	7820

26304 7590 12/01/2005

KATTEN MUCHIN ROSENMAN LLP
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER	
AU, GARY	

ART UNIT	PAPER NUMBER
2681	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/815,032	OTSUKA ET AL.	
	Examiner	Art Unit	
	Gary Au	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/31/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1, 5-7, 10 and 11 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-6 of prior U.S. Patent No. 6,741,859 Otsuka et al. (Otsuka). This is a double patenting rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,081,714 (Wakizaka).

As to claim 1, Wakizaka teaches a system for mobile communication based on code division multiple access (figure 1, col. 2 lines 27-35), comprising: base stations (base stations 1-4 – figure 1, col. 2 lines 27-35), each of which communicates with mobile stations by using a plurality of radio frequencies covering respective cells (col. 2 lines 36-65), the respective cells including a first cell covered by a first radio frequency and a second cell covered by a second radio frequency (col. 2 lines 36-40); and a base-station controller (control stations 5 and 6 – figure 1, col. 2 lines 27-35) which communicates with said base stations, and controls the mobile stations (mobile station 10 – figure 1, col. 2 lines 36-65) to switch from the first cell of a first base station to the first cell of a second base station via a soft hand-off operation and switch between the first cell and the second cell within any base station via a hard hand-off operation (col. 2 lines 40-65), said base-station controller providing the mobile stations with no direct switch between the second cell of said first base station and the second cell of said second base station (col. 2 line 66 – col. 3 line 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,081,714 (Wakizaka) as applied to claim 1 above, and further in view of US Patent No. 6,128,493 (Song).

Considering claim 2, Wakizaka teaches the system as claimed in claim 1, but fails to disclose that the first cell is larger than and fully encompasses the second cell.

In an analogous art, Song teaches the first cell is larger than and fully encompasses the second cell (figure 3B-C and 4B-C, col. 4 lines 14-28 and 49-59). It is convenient to have such an arrangement so that managing handoff is easier.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Wakizaka's system to make the first cell larger than and fully encompasses the second cell, as taught by Song, for the advantage of easily managing handoff.

Considering claim 3, Wakizaka further teaches said base-station controller (control stations 5 and 6 – figure 1, col. 2 lines 27-35) controls the mobile stations (mobile station 10 – figure 1, col. 2 lines 36-65) to switches from the first cell to the second cell as the mobile stations enter the second cell, and controls the mobile stations to switches from the second cell to the first cell as the mobile stations exit the second cell (col. 3 lines 9-28).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,081,714 (Wakizaka) as applied to claim 1 above, and further in view of US Patent No. 6,094,581 Fried et al. (Fried).

Considering claim 4, Wakizaka teaches the system as claimed in claim 1, wherein each of said base stations transmits only the first radio frequency when smaller than a given threshold (col. 4 lines 1-19), and transmits the second radio frequency when the number exceeds the given threshold (col. 4 lines 20-43), and wherein said base-station controller controls some of the mobile stations to switch from the first cell to the second cell as transmission of the second radio frequency starts (col. 4 lines 20-43).

In an analogous art, Fried teaches that the threshold is a number of the mobile stations belonging to the first cell (col. 4 lines 42-67). It is convenient to manage the amount of mobile stations to control the quality of the connection.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Wakizaka's system to make the threshold a number of the mobile stations belonging to the first cell, as taught by Fried, for the advantage of controlling the quality of the connection.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,081,714 (Wakizaka) as applied to claim 1 above, and further in view of US Patent No. 6,393,003 (Lee).

Considering claim 8, Wakizaka teaches the system as claimed in claim 1, but fails to disclose there is a third cell covered by a third frequency.

In an analogous art, Lee teaches the respective cells further include a third cell covered by a third frequency (figure 2, col. 5 lines 60-67 and col. 6 lines 1-37) and fully encompasses by the second cell (figure 2, col. 3 lines 35-50, col. 8 lines 14-17, col. 9 lines 5-67 and col. 10 lines 1-8), and wherein the mobile stations switch from the second cell to the third cell when the mobile stations enter the third cell. It is convenient to increase the capacity and thus the number of mobile stations that can use a cell.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Wakizaka's system to include a third cell covered by a third frequency and fully encompasses by the second cell, and wherein the mobile stations switch from the second cell to the third cell when the mobile stations enter the third cell, as taught by Lee, for the advantage of increasing the capacity and thus the number of mobile stations that can use a cell.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,393,003 (Lee), and further in view of US Patent No. 5,953,661 Schwinghammer et al. (Schwinghammer).

Considering claim 9, Lee teaches a mobile station, comprising: a searcher which searches for pilot signals of surrounding base stations (col. 4 lines 38-45, col. 4 lines 22-67, and col. 5 lines 10-15), but fails to disclose a searcher-stop-control unit.

In an analogous art, Schwinghammer teaches a searcher-stop-control unit which stops said searcher from searching for the pilot signals when said mobile station is currently using a radio frequency that does not permit a soft hand-off operation (col. 10

lines 1-8 and col. 9 lines 5-67). It is convenient to increase the capacity and the number of mobile stations that can use a cell.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Lee's system to include a searcher-stop-control unit which stops said searcher from searching for the pilot signals when said mobile station is currently using a radio frequency that does not permit a soft hand-off operation, as taught by Schwinghammer, for the advantage of increasing the capacity and the number of mobile stations that can use a cell.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,081,714 (Wakizaka) as applied to claim 1 above, and further in view of US Patent No. 6,393,003 (Lee).

Considering claim 12, Wakizaka teaches a mobile station for use in the system of claim 1, but fails to disclose a searcher.

In an analogous art, Lee teaches a searcher that searches for pilot signals of the base stations only with respect to the first radio frequency (col. 4 lines 43-45). It is convenient to increase the capacity and the number of mobile stations that can use a cell.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made Lee's system to include a searcher that searches for pilot signals of the base stations with respect to the first radio frequency, as taught by Lee,

for the advantage of increasing the capacity and the number of mobile stations that can sue a cell.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,021,123 (Mimura) teaches a CDMA cellular radio system a plurality frequencies of the system are divided into frequencies belonging to a first group and frequencies belonging to a second group. US Patent No. 6,069,871 (Sharma et al.) teaches a wireless communication system provides wireless service to a mobile unit operating within a service area and includes a mobile switching center. US Patent No. 5,987,013 (Kabasawa) teaches expediting handoff control while a mobile unit moves between first and neighboring second cells. US Patent No. 6,405,043 (Jensen et al.) teaches a computer implemented process compares signals communicated between a known position and a plurality of base stations in a cellular telephone system to determine the level of interference with a signal on a channel expected to serve the known position.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Au whose telephone number is (571) 272-2822. The examiner can normally be reached on 8am-5pm Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER